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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,052	06/27/2003	Arnold J. Herberg	TRW(AP)6383	7917

7590 04/21/2005  
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EXAMINER

ENGLISH, PETER C

ART UNIT PAPER NUMBER

3616

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/608,052	Applicant(s) HERBERG ET AL.	
	Examiner Peter C. English	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-32 is/are allowed.
- 6) ☒ Claim(s) 1, 11-16 and 19-24 is/are rejected.
- 7) ☒ Claim(s) 2-10, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20030627</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because:

In Fig. 1, reference number 158 and its lead line should be deleted. Note that this reference number corresponds to the rewind spring shown in Fig. 2.

In Fig. 4, "310" should be "312"; and "312" should be "310". See page 23, lines 23-24.

2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

3. Claim 22 is objected to because:

At line 4, "gears" should be "gear wheels".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Petri et al. (US 2002/0109392). Petri et al. discloses a seat belt system comprising: first and second lap belts 14, 16; first and second shoulder belts 18, 20; a buckle assembly 22, 24 interconnecting the lap and shoulder belts 14, 16, 18, 20; first and second lap belt retractors 36, 38 spaced away from one another; and a linking mechanism 86, 88 interconnecting the lap belt retractors 36, 38 so that the lap belt retractors 36, 38 are extended and retracted in unison, thereby centering the buckle assembly 22, 24 relative to an occupant (see paragraphs 7 and 24).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 11-13 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petri et al. (US 2002/0109392) in view of Coenan (US 4,147,387) and Martin et al. (US 6,149,094). Petri et al. lacks a linking mechanism including first and second gear wheels on the

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first and second lap belt retractors interconnected by an even number of drive assembly gear wheels. Coenan teaches first and second retractor spools 48, 49 interconnected by gear wheels 50, 51. Martin et al. teaches a reel device including first and second gear wheels 52, 52 on first and second retractor spools 48, 48 interconnected by an even number of drive assembly gear wheels 68, 100. From these teachings of Coenan and Martin et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Petri et al. by providing a linking mechanism including first and second gear wheels on the first and second lap belt retractors interconnected by an even number of drive assembly gear wheels because this provides for uniform application of the retractors' spring force in both directions of operation and thus uniform motion of all moving parts to assure synchronized extension and retraction, and also promotes minimizing the size of the retractors (see Martin et al., column 3, lines 48-64).

9. Claims 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petri et al. in view of Coenan and Martin et al., as applied to claims 11 and 19 above, and further in view of Rouhana et al. (US 6,773,075). The Petri et al., Coenan and Martin et al. combination lacks linked first and second shoulder belt retractors acting in unison. Rouhana et al. teaches first and second shoulder belt retractors 52, 54 linked by gear assemblies 60, 62 such that the retractors act in unison (see column 4, lines 23-31). From this teaching of Rouhana et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Petri et al. by providing linked first and second shoulder belt retractors acting in unison in order to control occupant motion and reduce force levels on an occupant's chest (see Rouhana et al., column 3, lines 38-39), and in order to provide for more complete retraction of the shoulder belts when the buckle assembly is disengaged.

10. Claims 15, 16 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Petri et al. in view of Coenan, Martin et al. and Rouhana et al., as applied to claims 14 and 23 above, and further in view of Gloomis (US 4,518,130). The Petri et al., Coenan, Martin et al. and Rouhana et al. combination lacks shoulder belt retractors linked by a universal joint. Gloomis teaches first and second retractors 12, 14 linked by a universal joint 138. From this teaching of Gloomis, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

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further modify Petri et al. by linking the first and second shoulder belt retractors by a universal joint because this constitutes a less complex and less expensive linking structure.

***Allowable Subject Matter***

11. Claims 2-10, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 25-32 are allowed.

13. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach a restraint system, as defined in claim 25, including linked first and second lap belt retractors acting in unison, and an indication system comprising sensors and an indicator, the sensors sensing characteristics of first and second lap belts, and the indicator indicating that the first and second lap belts and first and second shoulder belts are not worn correctly when the sensed characteristics differ by a predetermined amount.

***Conclusion***


14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fontaine teaches linked retractors. Herberg et al. teaches a seat belt system with an indicator.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. English whose telephone number is 571-272-6671. The examiner can normally be reached on Monday through Thursday (7:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Peter C. English  
Primary Examiner  
Art Unit 3616  
4/18/05

pe  
18 April 2005